



PATENT
Docket No. 29287/117

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS : Toshinori ONO et al.
SERIAL NO. : 09/784,952
FILED : February 16, 2001
FOR : MAGNETIC RECORDING MEDIUM, THE
MANUFACTURING METHOD AND MAGNETIC
RECORDING APPARATUS USING THE SAME
GROUP ART UNIT : 1773
EXAMINER : N. J. Uhler

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ASSISTANT COMMISSIONER
FOR PATENTS
Washington, DC 20231

RESPONSE TO OFFICE ACTION

SIR:

04/11/2003 TROSSI 00000013 110600 09784952
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In response to the Office Action dated December 4, 2002, please amend the above-identified application as follows:

IN THE CLAIMS:

Please amend claims 1 and 8 as follows.

1. (Twice Amended) A magnetic recording medium, the magnetic recording medium having a magnetic film on a non-magnetic substrate by intercalating at least an under layer, the proportion of functional groups per 100 carbon atoms in a diamond-like carbon protective coating mainly composed of carbon for protecting the magnetic film exceeds 20%, and includes at least a functional group having N atoms.

8. (Twice Amended) A magnetic storage apparatus, comprising a magnetic recording medium that in the magnetic recording medium having a magnetic film on a non-magnetic